No. 200100265

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Seed Research of Oregon

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE , OR CONDITIONING IT ROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR NT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

FESCUE, TALL

'SR 8600'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this twenty-second day of November, in the year two thousand and four.

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary
of Agriculture

REPRODUCE LOCALLY. *Include form number and date on all reproductions*

Form Approved - OMB No. 0581-0055

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1 NAME OF OWNER	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME	3. VARIETY NAME
Seed Research of Oregon	SRX 8NJTF, SRX 8600	SR 8600

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*	5. TELEPHONE *(Include area code)*	FOR OFFICIAL USE ONLY
27630 Llewellyn Rd. Corvallis, OR 97333	541-757-2663	PVPO NUMBER: 200100265
	6. FAX *(Include area code)*: 541-758-5305	FILING DATE: August 23, 2001

7. IF THE OWNER NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)*	8. IF INCORPORATED, GIVE STATE OF INCORPORATION	9. DATE OF INCORPORATION
Corporation	OR	1983

10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. *(First person listed will receive all papers)*

Dr. Leah A. Brilman
Seed Research of Oregon
27630 Llewellyn Rd.
Corvallis, OR 97333

FEES RECEIVED

FILING AND EXAMINATION FEES: $ 2450⁻ + 255⁻ DATE 8/23/01 9/6/02

CERTIFICATION FEE: $ 432⁻ DATE 9/14/04

11. TELEPHONE *(Include area code)*	12. FAX *(Include area code)*	13. E_MAIL	14. CROP KIND *(Common Name)*
541-758-9115	541-752-2065	srofarm@attglobal.net	Tall fescue

15 GENUS AND SPECIES NAME OF CROP	16. FAMILY NAME *(Botanical)*	17. IS THE VARIETY A FIRST GENERATION HYBRID?
Festuca arundinacea	*Poaceae*	☐ YES ☒ NO

18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow instructions on reverse)*

- a. ☒ Exhibit A. Origin and Breeding History of the Variety
- b. ☒ Exhibit B. Statement of Distinctness
- c. ☒ Exhibit C. Objective Description of Variety
- d. ☒ Exhibit D. Additional Description of the Variety *(Optional)*
- e. ☒ Exhibit E. Statement of the Basis of the Owner's Ownership
- f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository)*
- g. ☒ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to the Plant Variety Protection Office)*

19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? *See Section 83(a) of the Plant Variety Protection Act)*

☐ YES *(If "yes", answer items 20 and 21 below)* ☒ NO *(If "no," go to item 22)*

20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?

☐ YES ☐ NO

21. IF "YES" TO ITEM 20, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?

☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES?

☒ YES ☐ NO

IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. *(Please use space indicated on reverse.)*

23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT *(PLANT BREEDER'S RIGHT OR PATENT)*?

☐ YES ☒ NO

IF YES, PLEASE GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. *(Please use space indicated on reverse.)*

24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF OWNER		SIGNATURE OF OWNER	
Leah A. Brilman			
NAME *(Please print or type)*		NAME *(Please print or type)*	
Leah A. Brilman			
CAPACITY OR TITLE	DATE	CAPACITY OR TITLE	DATE
Research Director	8-21-01		

INSTRUCTIONS

200100265

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for $2,450 ($300 filing fee and $2,150 examination fee), payable to "Treasurer of the United States" *(See Section 97.6 of the Regulations and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of $300 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office
Telephone: (301) 504-5518
FAX: (301) 504-5291
Homepage: http://www.ams.usda.gov/science/pvp.htm

ITEM

18a. Give:
(1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;
(2) the details of subsequent stages of selection and multiplication;
(3) evidence of uniformity and stability; and
(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified

18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;
(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness

18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, *etc.*

18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.

19. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See Regulations and Rules of Practice, Section 97.103).*

22. *See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.*

23. *See Section 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.*

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22. CONTINUED FROM FRONT *(Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)*

September 20. 2000

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23. CONTINUED FROM FRONT *(Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)*

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)*

To avoid conflict with other variety names in use, the applicant must check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center–East, Beltsville, MD 20705. Telephone: (301) 504-8089.

S&T-470 (6-98) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (03-96) which is obsolete.

Exhibit A.

Origin and Breeding History of SR 8600 (SRX 8NJTF) Tall Fescue

SR 8600 (SRX 8NJTF) tall fescue (*Festuca arundinacea* Schreb.) is a low-growing, dark green, fine-leaved, turf-type tall fescue selected from the maternal progenies of 12 different clones.

The parental germplasm of SR 8600 tall fescue traces its origin to plants selected from old turfs of the United States in a germplasm collection program initiated in 1962 and to plants selected from or related to Rebel tall fescue (Funk et al., 1981). Attractive clones were selected from old turfs in Birmingham, AL; Athens, Atlanta, and Millegeville, GA; Preston, ID; Baltimore, MD; Bayonne, Jersey City, Elizabeth, Princeton, and Cape May, NJ; eastern North Carolina; Philadelphia, PA; Nashville, TN; Lexington, KY; Cincinnati, OH; Dallas, TX; and northern Mississippi. The tall fescue plants selected from old turfs were of unknown origin. All were large patches of turf surviving in stressful environments indicating that they had persisted and developed over a period of many years.

A few hundred attractive, turf-type plants were collected and established in spaced-plant nurseries and/or frequently mowed clonal evaluation trials at Rutgers University. All but a few dozen of the most promising plants were quickly discarded. The best selections were very different from any tall fescue variety in existence at the time of collection. They produced lower-growing turfs with finer leaves, greater density, darker color, and greater tolerance of close mowing.

The most promising plants were identified by their persistence and appearance in old turfs and their performance in spaced-plant nurseries, mowed clonal evaluation tests, and single-plant progeny trails under turf maintenance. Intercrosses of the best

performing plants were subjected to varying cycles of phenotypic and genotypic selection depending on their date of collection. New sources of germplasm were added to the breeding program as it became available from the continuing collection program. Each cycle of selection showed continued progress in producing lower-growing, darker green, attractive plants with improved turf performance scores. Selection was also effective in maintaining high seed yields, and good stress tolerance. Substantial progress was made in developing tall fescues with finer leaves, a lower growth profile, increased persistence under close mowing, and increased density.

Large numbers of single-plant progenies were seeded in turf evaluation trials at the Plant Science Research Farm at Adelphia, NJ in 1995. The plants selected for progeny evaluation were selected from spaced-plant nurseries at Adelphia following varying cycles of phenotypic and genotypic selection of germplasm selected from old turfs and germplasm selected from or related to Rebel tall fescue.

Following a period of summer stress due to heat, drought, and disease, a total of 1,900 plants were selected from 19 of the best performing single-plant progeny turf plots. All 19 progenies were from the 1995 test. Selection of progenies was based on performance records, as well as appearance at the time the plants were selected from these progeny plots. Selection of plants from each progeny was based on an attractive dark green color, fine leaves, abundant tillering, and freedom from disease. Selected plants were sent to Seed Research of Oregon in the fall of 1996. In 1997 and 1998, Seed Research of Oregon classified the plants received from Rutgers based on maturity, height, color and leaf texture. SR 8600 was derived from the portion of plants designated at dwarf and early. These plants were all very dark green with fine leaf texture.

For most lines received 70 plants per line were established, with the exception of A95-246 were 105 plants were established and only 35 of A95-212 and A95-262. After

rouging these lines for stem rust resistance and seed yield potential, in addition to the above characteristics, the remaining plants of each row was harvested separately. Endophyte level was checked for the seeds from each row. In some cases the seed was included in the final breeder seed from one row but not the other from the same line. The lines are number of plants that contributed seed to the breeder seed (high E) are: A95-594, 43 plants; A95-246, 23 plants; A95-262, 29 plants; A95-660, 25 plants and A95-580, 7 plants. The lines and number of plants that only contributed pollen to the population were A95-246, 43 plants; A95-580, 23 plants; A95-660 18 plants and A95-212, 24 plants. Some of these lines had endophyte but the levels in the seed produced from a composite of plants from each row were less than 60%.

SR 8600 forms a high quality turf with a dark green color and dwarf growth habit. It contains high endophyte levels. It has shown excellent brown patch and leaf spot resistance. SR 8600 is a stable and uniform variety. A few variants that are taller and with wider leaves than the rest of the variety have been observed in foundation field (less than 2%), but have never been observed in our PVP nurseries established with the same seed. The first foundation field was established in the fall of 1999 along with turf plots of the final composite and the initial PVP nursery. The same percentage of variants have been found in certified production, although the taller plants were rouged from the foundation field. Three generations of increase are approved.

Diagram of Origin and Breeding History of SR 8600 Tall Fescue

1. 1962 to 1994

Germplasm collection, evaluation, and genetic improvement.

2. 1991 to 1995

Planted single-plant progenies of plants selected from current cycles of population improvement programs in closely mowed turf trials at Adelphia and North Brunswick, NJ.

3. 1996

Selected 1,900 plants from 19 of the best performing single-plant progeny turf plots planted in 1995. Selected plants were sent to Seed Research of Oregon for further selection and classification.

4. 1997

Plants were selected and rouged according to growth habit, fine leaf texture, freedom from disease and seed yield.

Each plant of SR 8600 tall fescue traces at least 20 percent of its ancestral germplasm to plants selected from or related to Rebel tall fescue.

References

1. Buckner, R. C., J. B. Powell, and R. V. Frakes. 1979. Historical Development, in Buckner, R. C., and L. P. Bush (editors) Tall Fescue. Agronomy Monograph 20. American Society of Agronomy, Crop Science Society of America, Soil Science Society of America, Inc., Publishers. Madison, Wisconsin pages 1-8.

2. Funk, C.R., R.E. Engel, W.K. Dickson, and R.H. Hurley. 1981. Registration of Rebel tall fescue. Crop Sci. 21:632.

EXHIBIT B.

'SR 8600' TALL FESCUE NOVELTY STATEMENT

'SR 8600' tall fescue most closely resembles Rebel Jr. and MiniMustang but can be distinguished from these varieties by a combination of the following:

SR 8600 can be distinguished from Rebel Jr. by the following;

1) SR 8600 has a significantly earlier heading date than Rebel Jr. in 1999 and 2000 (Tables 1 and 2).
2) SR 8600 has a significantly darker green leaf color in 1999 and 2000 (Table 8).

SR 8600 can be distinguished from MiniMustang by the following:

1) SR 8600 has a significantly darker green leaf color than MiniMustang in 1999 and 2000 (Table 8).

Table 8. Leaf color of tall fescue varieties in 1999 and 2000. These are the plants described in Tables 1 and 2. Leaf color was determined on fresh, fully expanded tiller leaves of each plant of each variety using the Munsell Color Chart. In addition, each color in the Munsell Chart was assigned a number from 1 to 9 with 1 being light green and 9 being very dark green. This allowed a more consistent assignment of a 1-9 color. The color charts used were the 5GY and 7.5 GY Charts. Colors for three varietes are reported but measurements were done on all varieties. These color differences are comparable to what is observed in turf plots and production fields.

Variety	1999 Color	2000 Color
SR 8600	6.9	6.8
MiniMustang	6.3	5.9
Rebel Jr.	5.9	5.3
LSD@5%	0.3	0.4

U.S. DEPARTMENT OF AGRICULTURE
PLANT VARIETY PROTECTION OFFICE, AMS, USDA
NATIONAL AGRICULTURAL LIBRARY Bldg., Rm. 500
10301 BALTIMORE Blvd.
BELTSVILLE, MD 20705

OBJECTIVE DESCRIPTION OF VARIETY
TALL & MEADOW FESCUES
(*Festuca* spp.)

NAME OF APPLICANT(S) Seed Research of Oregon	TEMPORARY DESIGNATION	VARIETY NAME
	SRX 8NJTF, SRX 8600	SR 8600
ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code) 27630 Llewellyn Rd. Corvallis, OR 97333		FOR OFFICIAL USE ONLY PVPO NUMBER 200100265

Place the appropriate number that describes the varietal characteristic of this variety in the boxes below. Use leading zeroes when necessary (e.g. 089). Characteristics described, including numerical measurements, should represent those that are typical for the variety. Measured data should be for SPACED PLANTS. Royal Horticultural Society or any recognized color fan may be used to determine plant colors. Characteristics marked with an asterisk * are characteristics which should be recorded.

* 1. SPECIES: (With comparison varieties, use varieties within the species of the application variety)

__X__ 1 = *F. arundinacea* (Tall)

Turf Types

1 = Kentucky 31 2 = Rebel 3 = Olympic 4 = Bonanza 5 = Arid 6 = Rebel II
7 = Shortstop 8 = Silverado 9 = Rebel Jr. 10 = Mini Mustang 11 = Crewcut 12 = Bonsai

Forage Types

20 = Kentucky 31 21 = Martin 22 = Forager 23 = Mozark
24 = Kenhy 25 = AU Triumph 26 = Fawn 27 = Cajun

_____ 2 = *F. pratensis* (Meadow)

30 = Admira 31 = Beaumont 32 = Comtessa 33 = Ensign 34 = Trader

* 2. CYTOLOGY:

__42__ Chromosome Number

3. ADAPTATION: (0 = Not Tested; 1 = Not Adapted; 2 = Adapted)

__2__ Transition Zone __2__ West __2__ Northeast _____ Other (Specify):_____

* 4. MATURITY: (Date First Headed, 10% of Panicle Emergence)

__5__ Maturity Class 1 = Very early ( ) 2 = AU Triumph 3 = Early (Fawn) 4 = K31, Kenhy 5 = Medium (Rebel)
6 = Bonanza 7 = Late (Silverado) 8 = 9 = Very late

Date Headed __116.1__ Location __Corvallis, OR 2000__

__4.5__ Days earlier than __9__

Maturity same as __6__ Comparison Variety

__6.1__ Days later than __1__

* 5. MATURE PLANT HEIGHT CM: (Average of 100 culms from crown to top of panicle, if panicle is nodding, straighten)

1 1 8 . 1 cm Height

1 4 8 cm shorter than 4

Height same as 9 Comparison Variety

1 3 8 cm taller than 12

* INTERNODE LENGTH CM: (First internode subtending the flag leaf)

2 5 . 0 cm Internode length

3 0 cm shorter than 6

Length same as 9 Comparison variety

___ cm longer than ___

* HEIGHT AT EAR EMERGENCE CM: (Flag leaf height from crown to flag leaf node)

6 3 8 cm Height

7 7 cm shorter than 7

Height same as 8 Comparison Variety

6 0 cm taller than 12

* 6. GROWTH HABIT: (Mature Plants)

7 1 = Prostrate ( ) 3 = Semiprostrate ( ) 5 = Horizontal ( )
7 = Semierect (Rebel) 9 = Erect (Mini Mustang)

* 7. RHIZOMES (Psuedo):

4 5 3 mm Length ___1 = Absent ( ) 2 = Rare (Rebel) 3 = Common (50 % parents) Internode 13.9 mm

* 8. LEAF BLADE: (Tiller leaves/ turf color)

*6.8 Color: 1 = Light green ( ) 3 = Medium light green ( ) 5 = Green ( )
7 = Medium dark green ( ) 9 = Very dark green ( )
5.9 Specify rating of comparison variety (MiniMustang) 5.3 for Rebel Jr.

* 1 Anthocyanin: 1 = Absent ( ) 9 = Present ( )

* 1 Basal Hairs: 1 = Absent ( ) 9 = Present ( )

* 5 Margins: 1 = Smooth ( ) 5 = Semi-rough ( ) 9 = Rough ( )

* 7 Width Class: 1 = Very coarse ( ) 3 = Coarse ( ) 5 = Medium ( )
7 = Fine ( ) 9 = Very Fine ( )

* TILLER LEAF LENGTH CM: (First leaf subtending the flag leaf)

3 9 4 cm Tiller Leaf Length

9 8 cm shorter than 4

Length same as 8 Comparison Variety

8 9 cm longer than 12

* TILLER LEAF WIDTH MM:

6 . 6 mm Tiller Leaf Width

1 1 mm narrower than 4

Width same as 9 Comparison variety

__ mm wider than ___

8. LEAF BLADE: (continued)

FLAG LEAF LENGTH CM:

1 2 5 cm Flag Leaf Length

3 8 cm shorter than 1

Length same as 8 Comparison Variety

__ . __ cm longer than ___

FLAG LEAF WIDTH MM:

5 . 5 mm Flag Leaf Width

0 . 7 mm narrower than 1

Width same as 7 Comparison variety

0 . 9 mm wider than 12

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* 9. LEAF SHEATH: (Basal Portion)

* 9 Anthocyanin (seedling): 1 = Absent (K31) 9 = Present ( )

* 9 Auricle Hairiness: 1 = Absent ( ) 9 = Present ( )

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* 10. PANICLE: (At seed maturity except where noted.)

* 4.8 Shape: 1 = Narrow-tapering ( ) 5 = Ovate ( ) 7 = Oblong ( ) 9 = Other (specify)

*4.3 Type: 1 = Compact (appressed) 5 = Intermediate ( ) 7 = Open ( ) 9 = Other (specify)

*8.3 Orientation: 1 = Nodding ( ) 9 = Erect ( )

* 4.2 Branch Pubescence: 1 = Glabrous ( ) 9 = Pubescent ( )

* 1 Anther Color (At anthesis): 1 = Yellowish Green 2 = Green 3 = Bluish Green (80% = 1, 20% = 2)
4 = Purplish 5 = Reddish 6= Other (Specify)

* 2 Glume Color (At anthesis): 1 = Yellowish Green 2 = Green 3 = Bluish Green (75% = 2, 25% = 5)
4 = Purplish 5 = Reddish 6= Other (Specify)

* 2 6 3 cm Panicle Length (from base to tip, if nodding, straighten; after anthesis)

4 . 9cm shorter than 6

Length same as 10 Comparison Variety

5 8 cm longer than 12

---

* 11. SEED: (With Lemma & Pelea)

* 2 3 8 2 mg per 1000 seeds

4 7 2 mg less than 6

Weight same as 9 Comparison Variety

3 6 0 mg more than 12

PALEA: (Keels or Margins) 6.2 Hairs: 1 = Absent ( ) 5 = Short (Missouri 96) 9 = Long ( )
7.8 (1-9, 9 = Many)

LEMMA: 3.1 Hairs: 1 = Absent (Kenhy) 5 = Several ( ) 9 = Many (Missouri 96)
4.1 (1-9, 9 = Long)

5 4 mm Lemma Length (Mature)

0 2 mm shorter than 9

Length same as 7 Comparison Variety

1 3 mm Lemma width

0 2 mm narrower than 1

Width same as 8 Comparison variety

*AWNS: 9 AWNS: 1 = Absent ( ) 9 = Present (Falcon) 97 % Plants with awns

1.2 mm Awn length (Of those present.)

0.2 mm Shorter than 10

Length same as 8 Comparison Variety

0.2 mm Longer than 11

12. DISEASE, INSECT, AND NEMATODE REACTION: (0= Not Tested 1= Least Resistant 9= Most Resistant)

___ Melting-out *Drechslera poae*

___ Leaf Spot *D. siccans*

___ Net Blotch *D. dictyoides*

6 Brown Patch *Rhizoctonia solani*

___ C. Leaf Spot *Cercospora fectucae*

___ Pink Snow Mold *Gerlachia nivalis*

___ Silver Top *F. tricinctum, F. roseum*

___ Blind Seed *Gloeotinia temulenta*

___ Dollar Spot *Lanzia, Mollerdiscus* spp.

___ Stem Rust *Puccinia graminis*

___ T. Blight *Typhula incarnata*

___ Pythium Blight *Pythium* spp.

___ Powdery Mildew *Erysiphe graminis*

___ Crown Rust *Puccinia coronata*

___ Other Disease _____

___ Other Insect _____

___ Other Nematode _____

13. ENVIRONMENTAL STRESS

6 Drought Stress	1 = Susceptible ( )	5 = Tolerant ( )	9 = Resistant ( )
___ Shade Stress	1 = Susceptible ( )	5 = Tolerant ( )	9 = Resistant ( )
___ Winter Stress	1 = Susceptible ( )	5 = Tolerant ( )	9 = Resistant ( )

14. GIVE VARIETY OR VARIETIES THAT MOST CLOSELY RESEMBLE THE APPLICATION VARIETY. For the following characteristics, indicate the degree of resemblance with the following scale:

1 = Application variety is less than comparison variety 2 = Same as 3 = More than, better, greater, darker, etc.

Character	Varieties Rating	Character	Varieties Rating
Leaf Width	2 = Rebel Jr., MiniMustang	Leaf Color	3 = Rebel Jr., MiniMustang
Panicle Color	1 anthocyanin = Rebel Jr.,MiniMustang	Panicle Shape	2 = Rebel Jr., MiniMustang
Seed Size	2 = Rebel Jr., 3 = MiniMustang	Cold Injury	
Winter Color		Heat	
Disease			

* 15. EXPERIMENTAL: Give a brief summary of the experimental design utilized to collect the data used on this form. Cultural conditions, number of plants measured and plant spacing must be specified.
Data collected on spaced plants 3 ft. apart planted in two replications of 35 plants each near Corvallis, OR. Standard tall fescue cultural conditions were practiced with two Tilt apllications for rust control and diuron plus Goal for weed control. Irrigation was applied as needed to prevent stress. ANOVA was used for all statistical analysis followed by Fischer's Protected LSD if significant.

EXHIBIT D.

ADDITIONAL DESCRIPTION OF THE VARIETY

Table 1. Heading and anthesis dates for tall fescue varieties in 1999. The plants were established in the fall of 1998 with the seed of control varieties obtained from the repository at the Plant Material Center at Pullman, WA or from the breeder. Two replications of 35 plants were established and the number of plants with at least three heads are as shown. The plants were established a little later than normal so vernalization may not have been as effective. Two applications of TILT were applied to the PVP block to control stem rust. Means followed by the same letter are not significantly different at the 0.05 level. The weather from fall to summer was a little cooler than average and with less rainfall than previous few years. Heading and anthesis were determined for each plant. A plant was considered headed when 3 heads had emerged from the boot and at anthesis when 3 heads had anthers shedding pollen.

Variety	Plant Number	Heading Date Mean	Anthesis Date Mean
KY-31 NE	68	142.3 a	163.7a
Rebel II	69	143.3 ab	164.8 bc
Titan	67	143.6 ab	164.4 ab
Crewcut	62	144.0 bc	165.8 de
KY-31 E	66	144.0 bc	164.7 bc
SR 8500	70	144.0 bc	165.8 de
Grande	67	144.0 bc	164.5 ab
SR 8600	69	144.1 bcd	164.8 ab
MiniMustang	67	144.2 bcd	165.1 bcd
Silverado	69	145.4 cde	166.2 ef
Shortstop	67	145.6 de	166.4 efg
Rebel Jr.	69	146.1 ef	165.3 bcd
Bonsai	63	146.6 efg	167.6 g
SR 8200	68	147.4 fg	165.8 de
Bonanza	58	147.9 g	166.4 efg
SR 8210	64	148.0 g	165.6 cde
LSD @5%		1.5	0.9

Table 2. Heading and anthesis dates for tall fescue varieties in 2000. The plants were established in the fall of 1998 with the seed of control varieties obtained from the repository at the Plant Material Center at Pullman, WA or from the breeder. Two replications of 35 plants were established and the number of plants with at least three heads are as shown. These are the same plants used for data collection in 1999. Dates are much earlier than in 1999 due to bigger size and more effective vernailization. Two applications of TILT were applied to the PVP block to control stem rust. Means followed by the same letter are not significantly different at the 0.05 level.

Variety	Plant Number	Heading Date Mean	Anthesis Date Mean
KY-31 NE	68	110.0 a	145.2 a
KY-31 E	68	110.9 a	146.3 ab
Titan	69	114.2 b	147.6 bc
SR 8600	69	116.1 bc	149.7 c
Rebel II	69	116.8 c	148.9 bc
MiniMustang	68	117.3 cd	151.1 d
Crewcut	67	119.5 de	152.0 de
Silverado	69	120.0 ef	152.9 e
Grande	68	120.5 ef	152.3 de
SR 8500	70	120.6 ef	151.7 de
Rebel Jr.	69	120.6 ef	152.5 de
Shortstop	67	121.5 efg	153.1 ef
Bonanza	62	121.7 efg	152.7 f
SR 8210	67	121.7 fg	152.2 ef
SR 8200	70	123.0 g	152.9 ef
Bonsai	66	123.3 g	154.3 f
LSD @5%		2.3	1.4

Table 3. Comparative plant morphological measurements of tall fescue varieties in a spaced plant nursery in 1999 near Corvallis, OR. The plants are those described in Table 1. Randomly selected reproductive tillers were selected after anthesis for measurement, with 60 measurements for each characteristic, 30 per rep. Panicle length in this table is that measured in the field on the same tillers used for plant height. Panicle length in Table 7 is from the panicle collected for seed measurements. Plant width is maximum extension of two horizontal measurements of leaf spread at the top of the plant, disregarding the outer leaves falling beyond the margins of the plant (DUS definition), this characteristic is sometimes greater on younger plants which will assume a more decumbent panicle habit than more mature plants.

Variety	Plant Height (cm)	Panicle Branch Internode Length (cm)	Height at Ear Emergence (cm)	Plant Width (cm)	Panicle Length (cm)
Bonsai	63.55	11.26	28.84	45.71	15.34
Silverado	66.63	12.43	33.61	51.13	17.27
SR 8600	67.54	11.94	34.23	52.82	17.87
Rebel Jr.	67.92	12.53	34.45	49.10	18.43
Grande	68.31	13.28	36.90	63.35	17.46
MiniMustang	73.52	13.33	38.48	55.88	18.18
SR 8200	74.06	13.28	37.98	59.50	20.42
Crewcut	74.32	13.29	37.49	53.12	19.56
SR 8500	74.98	12.56	37.41	56.68	18.15
SR 8210	78.58	15.18	42.71	57.07	19.36
Shortstop	79.65	14.64	40.58	58.04	19.21
Rebel II	81.79	15.52	45.96	68.68	20.05
Titan	83.44	15.64	49.71	72.85	19.74
Bonanza	84.32	14.50	42.71	51.44	22.88
Kentucky 31 NE	97.17	18.60	56.55	75.77	23.81
Kentucky 31 E	99.72	18.25	58.58	72.84	24.89
LSD @5%	4.86	1.44	3.35	4.95	1.59

Table 4. Comparative plant morphological measurements of tall fescue varieties in a spaced plant nursery in 2000 near Corvallis, OR. The plants are those described in Table 2 and were the same plants measured in 1999. Randomly selected reproductive tillers were selected after anthesis for measurement, with 60 measurements for each characteristic, 30 per rep. Panicle length in this table is that measured in the field on the same tillers used for plant height. Plant width is is a measurement of the base of the plant, which may be different than the characteristic measured in 1999..

Variety	Plant Height (cm)	Panicle Branch Internode Length (cm)	Height at Ear Emergence (cm)	Plant Width (cm)	Panicle Length (cm)
Bonsai	104.30	23.52	57.83	31.35	20.58
Silverado	109.72	23.45	63.78	31.70	24.57
SR 8500	112.42	22.74	65.64	29.90	25.23
MiniMustang	115.34	23.91	65.85	35.23	25.85
SR 8600	118.11	25.01	63.80	29.13	26.34
Grande	120.34	26.24	69.77	35.27	28.09
Rebel Jr.	122.22	26.34	70.03	31.68	28.22
Crewcut	122.59	25.63	71.00	36.38	27.75
Shortstop	122.63	24.45	71.36	33.83	26.98
SR 8200	126.18	25.97	73.81	33.23	28.91
SR 8210	128.59	27.34	78.06	32.65	28.15
Bonanza	132.91	28.35	79.18	34.59	32.89
Rebel II	135.90	27.95	82.05	37.58	31.24
Titan	136.86	26.97	81.91	32.35	30.81
Kentucky 31 NE	149.21	28.79	90.13	40.08	33.37
Kentucky 31 E	149.63	27.82	92.40	36.98	35.05
LSD @5%	5.70	1.82	4.71	2.50	2.17

Table 5. Leaf characteristics of tall fescue varieties in 1999 near Corvallis, OR. The plants are those described in Table 1. The leaves were measured on the reproductive tillers utilized in Table 3. The vegetative leaf was measured as the last fully expanded leaf on vegetative tillers on the same plants as described in Table 1.

	Flag Leaf		Subtending Leaf		Vegetative Tiller Leaf	
Variety	**Length (cm)**	**Width (mm)**	**Length (cm)**	**Width (mm)**	**Length (cm)**	**Width (mm)**
Bonsai	6.34	4.74	10.81	6.97	16.15	7.29
Silverado	7.84	5.82	13.05	8.22	21.89	9.00
Rebel Jr.	8.69	6.22	14.12	8.90	21.62	8.16
SR 8600	8.77	6.60	14.53	9.01	20.73	8.19
SR 8210	9.08	5.99	16.51	8.96	24.31	8.46
Titan	9.10	6.40	15.92	9.62	28.64	9.71
Grande	9.34	6.43	15.09	8.88	22.61	8.25
SR 8500	9.40	5.98	14.83	8.10	20.84	7.63
MiniMustang	9.41	6.05	15.14	8.22	22.79	8.13
Shortstop	9.53	6.59	15.06	9.01	22.96	9.57
Crewcut	9.86	6.23	14.84	8.43	22.44	8.48
Kentucky 31 E	10.50	7.92	20.24	11.12	34.72	11.91
Kentucky 31 NE	10.76	7.92	19.31	11.62	31.89	10.14
SR 8200	11.18	7.52	17.03	9.95	23.72	9.21
Rebel II	11.49	6.99	18.22	9.93	29.30	9.32
Bonanza	12.39	7.18	17.54	10.18	24.81	9.37
LSD@5%	1.35	0.66	1.65	0.67	2.66	0.68

Table 6. Leaf characteristics of tall fescue varieties in 2000 near Corvallis, OR. The plants are those described in Tables 1 and 2. The leaves were measured on the reproductive tillers utilized in Table 4. The vegetative leaf was measured as the last fully expanded leaf on vegetative tillers on the same plants as described in Table 1 and 2.

	Flag Leaf		Subtending Leaf		Vegetative Tiller Leaf	
Variety	**Length (cm)**	**Width (mm)**	**Length (cm)**	**Width (mm)**	**Length (cm)**	**Width (mm)**
Bonsai	10.74	4.63	16.86	6.06	30.46	6.28
SR 8600	12.54	5.50	20.91	6.64	39.40	6.60
Crewcut	13.34	5.79	22.36	6.91	42.23	6.65
SR 8500	13.59	4.89	21.31	6.10	35.24	6.49
Silverado	13.87	5.16	22.16	6.51	40.74	6.42
MiniMustang	13.90	4.56	21.97	6.09	41.34	5.92
Rebel Jr.	14.72	5.99	23.66	7.16	42.45	6.28
Titan	14.88	5.68	25.78	7.18	48.58	6.87
Shortstop	14.98	5.55	22.99	6.66	38.06	6.34
Grande	15.20	6.17	22.92	7.28	40.82	6.33
SR 8210	15.56	5.55	27.09	6.94	50.90	6.98
SR 8200	15.78	6.26	26.59	7.55	48.78	6.75
Kentucky 31 NE	16.24	6.19	28.00	8.28	54.70	8.93
Kentucky 31 E	16.29	6.81	28.29	9.07	53.92	8.24
Rebel II	17.39	6.31	29.10	7.34	41.21	7.16
Bonanza	17.85	6.61	28.82	8.01	49.21	7.71
LSD@5%	1.91	0.62	2.08	0.60	4.64	0.57

Table 7. Panicle and seed characteristics of tall fescue varieties in 1999. Plants and growing conditions are as described in Table 1. Panicles were collected from the plants in the PVP nursery at seed maturity and placed in envelopes for later analysis. The panicle length measurement was of the collected panicles and was independent of the panicle measurement done on the plants during the growing season. Panicles were collected from both reps, with at least 30 panicles per replication. Seed measurements were performed on a fully formed viable seed from the bottom third of the panicle. All of the seed from each panicle were removed and blown to remove light seed to obtain seeds/panicle, mgs of seed/panicle and mg/1000 seeds, which was determined for each panicle.

Variety	Panicle Length(cm)	% Branchs Rough	No. of Seeds/ Pancicle	Weight of Seeds/ Panicle(mg)	Seed Weight (mg/1000 seeds)
Bonsai	14.47	40	147	371	2352
Silverado	16.52	41	173	395	2207
SR 8600	17.18	42	283	700	2382
SR 8500	17.47	34	248	555	2158
Grande	18.04	55	206	421	1981
MiniMustang	18.13	48	197	445	2101
Rebel Jr.	18.18	20	199	482	2300
Crewcut	18.42	65	252	687	2247
Shortstop	18.65	39	214	468	2022
SR 8210	18.70	37	238	618	2511
SR 8200	18.71	43	257	602	2256
Rebel II	19.69	49	236	763	2854
Titan	20.06	59	250	565	2158
Bonanza	21.27	56	207	487	2343
Kentucky 31 NE	22.52	51	231	530	2374
Kentucky 31 E	23.49	62	222	524	2330
LSD@5%	1.39	17	44	169	349

Table 7. (Continued).

Variety	Lemma		% Seeds	Awn
	Length(mm)	Width(mm)	With Awns	Length(mm)
Bonsai	6.57	1.31	100	1.12
Silverado	5.32	1.25	91	1.18
SR 8600	5.37	1.29	97	1.19
SR 8500	4.99	1.25	100	1.20
Grande	6.45	1.41	100	0.83
MiniMustang	5.70	1.21	100	1.38
Rebel Jr.	5.58	1.23	100	1.11
Crewcut	6.86	1.39	100	0.96
Shortstop	5.34	1.23	95	1.18
SR 8210	5.26	1.30	100	1.15
SR 8200	5.38	1.40	100	1.20
Rebel II	5.26	1.17	100	1.10
Titan	5.59	1.24	98	1.21
Bonanza	6.32	1.45	100	1.02
Kentucky 31 NE	6.59	1.46	100	1.12
Kentucky 31 E	5.99	1.25	100	1.19
LSD@5%	0.19	0.14	n.s.	0.20

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
Seed Research of Oregon	SRX 8NJTF,SRX 8600	SR 8600

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	5. TELEPHONE *(include area code)*	6. FAX *(include area code)*
27630 Llewellyn Rd. Corvallis, OR 97333	541-757-2663	541-758-5305

7. PVPO NUMBER 200100265

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* If no, please explain. ☒ YES ☐ NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company? ☒ YES ☐ NO
If no, give name of country

10. Is the applicant the original owner? ☒ YES ☐ NO *If no, please answer one of the following:*

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

☐ YES ☐ NO If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. *Additional explanation on ownership (if needed, use reverse for extra space):*

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

STD-470-E (07-97) *(Destroy previous editions).*
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